

wherein the gas comprises a halogenated gas or a halogenated lower molecule weight hydrocarbon, and
said film-forming surfactant comprises a phospholipid, and
said agent comprising a lipid attached to a linker portion for covalent coupling to one or more vector molecules, and
where said vector(s) binding to receptors/targets at sites associated with angiogenesis, inflammation, atherosclerotic plaques and/or thrombi,
said linker portion optionally comprising a peptide linker portion.

39. An agent as claimed in claim 38 wherein the linker portion comprises two or more lysine molecules.

40. An agent as claimed in claim 38 wherein the halogenated gas comprises a perfluorinated ketone, perfluorinated ether, partially halogenated hydrocarbon or perfluorocarbon and/or mixtures thereof.

41. An agent as claimed in claim 38 wherein the halogenated gas comprises sulphur hexafluoride or a perfluoropropane, perfluorobutane or perfluoropentane.

42. An agent as claimed in claim 38 wherein the microbubbles bear a net overall charge.

43. An agent as claimed in claim 42 wherein the net overall charge is negative.

44. An agent as claimed in claim 38 wherein the film-forming surfactant material comprises one or more phospholipids selected from the group consisting of phosphatidylcholines, phosphatidylglycerols, phosphatidylinositols, phosphatidylserines, phosphatidyletanolamines and phosphatidic acid.

45. An agent as claimed in claim 38 wherein the film-forming surfactant material comprises a lipopeptide. *(has lipid in base?)*

46. An agent as claimed in claim 38 which further contains moieties which are radioactive or are effective as X-ray contrast agents, light imaging probes or spin labels.

47. An agent as claimed in claim 38 further comprising a therapeutic compound.

48. An agent as claimed in claim 47 wherein said therapeutic compound is an antineoplastic agent, blood product, biological response modifier, antifungal agent, hormone or hormone analogue, vitamin, enzyme, antiallergic agent, tissue factor inhibitor, platelet inhibitor, coagulation protein target inhibitor, fibrin formation inhibitor, fibrinolysis promoter, antiangiogenic, circulatory drug, metabolic potentiator, antitubercular, antiviral, vasodilator, antibiotic, antiinflammatory, antiprotozoan, antirheumatic, narcotic, opiate, cardiac glycoside, neuromuscular blocker, sedative, local anaesthetic, general anaesthetic or genetic material.

49. An agent as claimed in claim 47 wherein said therapeutic compound is covalently coupled or linked to the reporter through disulphide groups.

50. An agent as claimed in claim 38 comprising a coupled polyethyleneglycol (PEG) element. *coupled where?*

51. An agent as claimed in claim 50 comprising a polyethyleneglycol (PEG) element coupled directly to the reporter molecules.

52. An agent as claimed in claim 50 wherein a PEG element is used as a spacer between the vector and said lipid.

53. An agent as claimed in claim 38 wherein the vector molecule is an angiogenesis-specific vector.

54. An agent as claimed in claim 53 comprising a vector binding to VEGF receptors.

55. An agent as claimed in claim 53 comprising a vector binding to the complex between an angiogenic factor and its receptor.

56. An agent as claimed in claim 53 wherein the vector binds to an endoglin.

57. An agent as claimed in claim 53 wherein the vector binds to an integrin.

58. An agent as claimed in claim 57 wherein the vector is an RGD-peptide.

59. An agent as claimed in claim 57 wherein the vector is a non-peptide RGD analogue.

60. An agent as claimed in claim 57 wherein the vector is selected from the group consisting of vectors binding to one or more of the following angiogenesis targets: integrins β_1 , β_3 and β_5 , $\alpha_v\beta_3$, $\alpha_6\beta_1$, $\alpha_2\beta_1$, $\alpha_v\beta_5$, α_6 and α_5 .

61. An agent as claimed in claim 60 wherein the vector binds to the integrin $\alpha_v\beta_3$.

62. An agent as claimed in claim 38 wherein the vector binds to thrombi, i.e. platelet or fibrin.

63. An agent as claimed in claim 38 comprising a vector which binds to endothelin receptors.